

Exhibit A**Declaration of Enzo Nisoli Under 37 C.F.R. § 1.132****BIOGRAPHICAL SKETCH**

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NAME Nisoli, Enzo		POSITION TITLE Associate Professor of Pharmacology	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Brescia University, Italy	M.D.	1988	Medicine/Pharmacology
Brescia University, Italy	Ph.D.	1994	Pharmacotherapy
Brescia University, Italy	Residency/Specialization	1997	Biochemistry and Clinical Chemistry

A. Positions and Honors.**Positions and Employment**

1984-1988 Internal student, Pharmacology, School of Medicine, University of Brescia
1989-1994 Research fellow, Pharmacology, School of Medicine, University of Brescia
1995-2000 Instructor and Fellow in Pharmacology, School of Medicine, University of Milan
2001- Associate Professor of Pharmacology and Pharmacotherapy, School of Medicine, University of Milan

Other Experience and Professional Memberships

1990-1991 Research fellow, Pharmacological Research Department, F. Hoffman-LaRoche Ltd, Basel, Switzerland
1994-present Member, Italian Obesity Society
2000-present Referee of the Italian Ministry of Health for the section of Pharmacology and Clinical Toxicology
2001-present Consultant of the Italian Agency for Control of Advertising – Foods and supplements section
2005-present Steering Committee, InLaNe Obesity Prevention Network

B. Selected peer-reviewed publications (in chronological order).

(Publications selected from 76 peer-reviewed publications – Citation Index: 1588, H-index: 19)

1. Nisoli E, Tonello C, Briscini L, Flaim R, Carruba MO. Leptin and nerve growth factor regulate adipose tissue. Nat Med. 2: 130, 1996.
2. Nisoli E, Tonello C, Briscini L, Carruba MO. Inducible nitric oxide synthase in rat brown adipocytes: implications for blood flow to brown adipose tissue. Endocrinology 138: 676-682, 1997.
3. Nisoli E, Clementi E, Tonello C, Sciorati C, Briscini L, Carruba MO. Effects of nitric oxide on proliferation and differentiation of rat brown adipocytes in primary cultures. Br J Pharmacol. 125: 888-894, 1998.
4. Nisoli E, Carruba MO, Tonello C, Macor C, Federspil G, Vettor R. Induction of fatty acid translocase/CD36, peroxisome proliferator-activated receptor-gamma2, leptin, uncoupling

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- proteins 2 and 3, and tumor necrosis factor-alpha gene expression in human subcutaneous fat by lipid infusion. *Diabetes*. 49: 319-324, 2000.
5. Nisoli E, Briscini L, Giordano A, Tonello C, Wiesbrock SM, Uysal KT, Cinti S, Carruba MO, Hotamisligil GS. Tumor necrosis factor alpha mediates apoptosis of brown adipocytes and defective brown adipocyte function in obesity. *Proc Natl Acad Sci U S A*. 97: 8033-8038, 2000.
 6. Nisoli E, Regianini L, Bulbarelli A, Briscini L, Bracale R, Carruba MO. Protective effects of noradrenaline against tumor necrosis factor-alpha-induced apoptosis in cultured rat brown adipocytes: role of nitric oxide-induced heat shock protein 70 expression. *Int J Obes Relat Metab Disord*. 25: 1421-1430, 2001.
 7. Giordano A, Tonello C, Bulbarelli A, Cozzi V, Cinti S, Carruba MO, Nisoli E. Evidence for a functional nitric oxide synthase system in brown adipocyte nucleus. *FEBS Lett*. 514: 135-140, 2002.
 8. Nisoli E, Regianini L, Briscini L, Bulbarelli A, Busetto L, Coin A, Enzi G, Carruba MO. Multiple symmetric lipomatosis may be the consequence of defective noradrenergic modulation of proliferation and differentiation of brown fat cells. *J Pathol*. 198: 378-387, 2002.
 9. Nisoli E, Clementi E, Paolucci C, Cozzi V, Tonello C, Sciorati C, Bracale R, Valerio A, Francolini M, Moncada S, Carruba MO. Mitochondrial biogenesis in mammals: the role of endogenous nitric oxide. *Science*. 299: 896-899, 2003.
 10. Cota D, Marsicano G, Tschop M, Grubler Y, Flachskamm C, Schubert M, Auer D, Yassouridis A, Thone-Reineke C, Ortmann S, Tomassoni F, Cervino C, Nisoli E, Linthorst AC, Pasquali R, Lutz B, Stalla GK, Pagotto U. The endogenous cannabinoid system affects energy balance via central orexigenic drive and peripheral lipogenesis. *J Clin Invest*. 112: 423-431, 2003.
 11. Nisoli E, Clementi E, Tonello C, Moncada S, Carruba MO. Can endogenous gaseous messengers control mitochondrial biogenesis in mammalian cells? *Prostaglandins Other Lipid Mediat*. 73: 9-27, 2004.
 12. Nisoli E, Clementi E, Moncada S, Carruba MO. Mitochondrial biogenesis as a cellular signaling framework. *Biochem Pharmacol*. 67: 1-15, 2004.
 13. Nisoli E, Falcone S, Tonello C, Cozzi V, Palomba L, Fiorani M, Pisconti A, Brunelli S, Cardile A, Francolini M, Cantoni O, Carruba MO, Moncada S, Clementi E. Mitochondrial biogenesis by NO yields functionally active mitochondria in mammals. *Proc Natl Acad Sci U S A*. 101: 16507-16512, 2004.
 14. Morroni M, Giordano A, Zingaretti MC, Boiani R, De Matteis R, Kahn BB, Nisoli E, Tonello C, Pisoschi C, Luchetti MM, Marelli M, Cinti S. Reversible transdifferentiation of secretory epithelial cells into adipocytes in the mammary gland. *Proc Natl Acad Sci U S A*. 101: 16801-16806, 2004.
 15. Clementi E, Nisoli E. Nitric oxide and mitochondrial biogenesis: a key to long-term regulation of cellular metabolism. *Comp Biochem Physiol A Mol Integr Physiol*. 142: 102-110, 2005.
 16. Nisoli E, Tonello C, Cardile A, Cozzi V, Bracale R, Tedesco L, Falcone S, Valerio A, Cantoni O, Clementi E, Moncada S, Carruba MO. Calorie restriction promotes mitochondrial biogenesis by inducing the expression of eNOS. *Science*. 310: 314-317, 2005.
 17. Valerio A, Ghisi V, Dossena M, Tonello C, Giordano A, Frontini A, Ferrario M, Pizzi M, Spano P, Carruba MO, Nisoli E. Leptin increases axonal growth cone size in developing mouse cortical neurons by convergent signals inactivating glycogen synthase kinase-3beta. *J Biol Chem*. 281: 12950-12958, 2006.
 18. Nisoli E, Cardile A, Bulbarelli A, Tedesco L, Bracale R, Cozzi V, Morroni M, Cinti S, Valerio A, Carruba MO. White adipocytes are less prone to apoptotic stimuli than brown adipocytes in rodent. *Cell Death Differ*. 13: 2154-2156, 2006.
 19. Federspil G, Nisoli E, Vettor R. A critical reflection on the definition of metabolic syndrome. *Pharmacol Res*. 53:449-456, 2006.

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20. Nisoli E, Carruba MO. Nitric oxide and mitochondrial biogenesis. *J Cell Sci.* 119: 2855-2862, 2006.
21. Valerio A, Cardile A, Cozzi V, Bracale R, Tedesco L, Pisconti A, Palomba L, Cantoni O, Clementi E, Moncada S, Carruba MO, Nisoli E. TNF- α downregulates eNOS expression and mitochondrial biogenesis in fat and muscle of obese rodents. *J Clin Invest.* 116: 2791-2798, 2006.
22. Nisoli E, Clementi E, Carruba MO, Moncada S. Defective mitochondrial biogenesis: a hallmark of the high cardiovascular risk in the metabolic syndrome? *Circ Res.* 100: 795-806, 2007.
23. Tedesco L, Valerio A, Cervino C, Cardile A, Pagano C, Vettor R, Pasquali R, Carruba MO, Marsicano G, Lutz B, Pagotto U, Nisoli E. Cannabinoid type 1 receptor blockade promotes mitochondrial biogenesis through endothelial nitric oxide synthase expression in white adipocytes. *Diabetes* 57: 2028-2036, 2008.
24. Valerio A, Dossena M, Bertolotti P, Boroni F, Sarnico I, Faraco G, Chiarugi A, Frontini A, Giordano A, Liou HC, De Simoni MG, Spano P, Carruba MO, Pizzi M, Nisoli E. Leptin is induced in the ischemic cerebral cortex and exerts neuroprotection through NF- κ B/c-Rel-dependent transcription. *Stroke* 40: 610-617, 2009.